Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. **(Currently Amended)** An isolated cadherin-like asymmetry protein 2 (CLASP-2) polynucleotide, wherein said polynucleotide comprises a nucleic acid encoding SEQ ID NO:2[[is]]

~~(a) a polynucleotide that has the sequence of SEQ ID NO: 1, 3, 5 or 9; or~~

~~(b) a polynucleotide that hybridizes under stringent hybridization conditions to (a) and encodes a polypeptide having the sequence of SEQ ID NO: 2, 4, 6 or 10 or an allelic variant or homologue of a polypeptide having the sequence of SEQ ID NO: 2, 4, 6 or 10; or~~

~~(c) a polynucleotide that hybridizes under stringent hybridization conditions to (a) and encodes a polypeptide with at 25 contiguous residues of the polypeptide of SEQ ID NO: 2, 4, 6 or 10; or~~

~~(d) a polynucleotide that hybridizes under stringent hybridization conditions to (a) and has at least [[12]] contiguous bases identical to or exactly complementary to SEQ ID NO: 1, 3, 5 or 9~~.

2. **(Currently Amended)** The polynucleotide of claim 1, wherein said polypeptide specifically binds to a PSD-95, Dlg, and Zo-1 domain (PDZ domain) of postsynaptic density protein of 95 kDa (PSD95), discs large 1 protein (DLG1) or neuroendocrine DLG (neDLG).

3. **(Original)** The polynucleotide of claim 2, wherein said polypeptide has a binding affinity of at least 10^4 M^{-1} for binding PSD95, DLG1 or neDLG.

4. **(Currently Amended)** The polynucleotide of claim 1 that encodes a polypeptide having the full-length sequence of SEQ ID NO: 2~~, 4, 6 or 10~~.

5. **(Original)** The isolated polynucleotide of claim 1, comprising the cDNA coding sequence of ATCC Deposit Nos. PTA-1562 and PTA-1563 and PTA-1573.

6. **(Currently Amended)** An isolated CLASP-2 polynucleotide comprising ~~a nucleotide sequence that has at least 90% percent identity to~~ SEQ ID NO: 1~~, 3, 5 or 9~~.

7. **(Withdrawn)** An isolated polypeptide comprising a nucleotide sequence that has at least 90% sequence identity to SEQ ID NO: 2, 4, 6 or 10 and is immunologically crossreactive with SEQ ID NO: 2, 4, 6 or 10 or shares a biological function with native CLASP-2.

8. **(Original)** A vector comprising the polynucleotide of claim 1.

9. **(Original)** An expression vector comprising the polynucleotide of claim 1 in which the nucleotide sequence of the polynucleotide is operatively linked with a regulatory sequence that controls expression of the polynucleotide in a host cell.

10. **(Original)** A host cell comprising the polynucleotide of claim 1, or progeny of the cell.

11. **(Original)** A host cell comprising the polynucleotide of claim 1, wherein the nucleotide sequence of the polynucleotide is operatively linked with a regulatory sequence that controls expression of the polynucleotide in a host cell, or progeny of the cell.

12. **(Original)** The host cell of claim 10 which is a eukaryote.

13. **(Withdrawn)** The polynucleotide of claim 1 that is an antisense polynucleotide less than about 200 bases in length.

14. **(Withdrawn)** An antisense oligonucleotide complementary to a messenger RNA comprising SEQ ID NO: 1, 3, 5 or 9 and encoding CLASP-2, wherein the oligonucleotide inhibits the expression of CLASP-2.

15. **(Currently Amended)** An isolated DNA that encodes [[a]] CLASP-2 protein of ~~as shown in~~ SEQ ID NO: 2~~, 4, 6 or 10~~.

16. **(Original)** The polynucleotide of claim 1 that is RNA.

17. **(Original)** A method for producing a polypeptide comprising:

(a) culturing the host cell of claim 10 under conditions such that the polypeptide is expressed; and

(b) recovering the polypeptide from the cultured host cell or its cultured medium.

18. **(Withdrawn)** An isolated polypeptide encoded by a polynucleotide of claim 1 (a) or (b).

19. **(Withdrawn)** The polypeptide of claim 18 that has the amino acid sequence of SEQ ID NO: 2, 4, 6 or 10, or a fragment thereof.

20. **(Withdrawn)** The isolated polypeptide of claim 18, wherein the polypeptide is cell-membrane associated.